

CLAIMS

What is claimed is:

5 1. A system for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:
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a plurality of wireless data transport (WDT) transceivers for supporting wireless data communications with the CMR system by a plurality of WDTs, each WDT transceiver coupled to an antenna and operable to communicate
10 the message with a different one of the WDTs via the antenna;
a controller operative to identify one of the WDTs for transporting the message within the CMR system and to select one of the WDT transceivers corresponding to the identified WDT for communicating the message;
a user interface, coupled to the controller, operative to provide
15 a unified interface to the WDT transceivers; and
a normalization function, coupled to each WDT transceiver and to the controller, operative to transform the message into a format acceptable for processing by the selected WDT transceiver.

20 2. The system of Claim 1 further comprising a memory, coupled to the controller, for storing the data content of the message to be communicated by the selected WDT.

25 3. The system of Claim 1, wherein the WDT transceivers are aggregated to form a transceiver system implemented as a single monolithic component.

30 4. The system of Claim 1, wherein the plurality of WDTs comprise overhead control channel, Short Message Service (SMS), Cellular Digital Packet Data (CDPD), and voice-channel modem transports.

5. The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in an operating environment and choosing one of the transceivers associated with the identified WDT to communicate the message based upon a characteristic of the 5 message.

6. The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in an operating environment and choosing one of the transceivers associated with the 10 identified WDT to communicate the message based upon the volume of the data content of the message.

7. The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message by identifying each available WDT in an 15 operating environment and choosing one of the transceivers associated with the identified WDT to communicate the message based upon the cost of the message communication.

8. The system of Claim 1, wherein the controller identifies one of the WDTs for transporting the message on a message-by-message basis.

9. A computer-implemented process for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising the steps:

5 identifying each wireless data transport in an operating environment of the CMR system;

10 selecting one identified wireless data transport to support the communication of the message based upon a characteristic of the data content; and

15 communicating the message with the selected wireless data transport in the CMR system.

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10. The computer-implemented process of Claim 9, wherein the step of selecting the identified wireless data transport comprises selecting one of the identified WDTs based upon a characteristic of the message.

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11. The computer-implemented process of Claim 9, wherein the step of selecting the identified wireless data transport comprises selecting one of the identified WDTs based upon the volume of the data content of the message.

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12. The computer-implemented process of Claim 9, wherein the step of selecting the identified wireless data transport comprises selecting one of the identified WDTs based upon the cost of conveying the message in the CMR system.

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13. The computer-implemented process of Claim 9, wherein the step of selecting the identified wireless data transport comprises selecting one of the identified WDTs based upon the priority assigned to the communication of the message by the CMR system.

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14. The computer-implemented process of Claim 9, wherein the CMR system supports the operations of a plurality of wireless data transports comprising overhead control channel, Short Message Service (SMS), Cellular Digital Packet Data (CDPD), and voice-channel modem transports.

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15. A computer-readable medium comprising instructions for completing the steps of Claim 9.

16. A memory storage device comprising computer-executable instructions for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

5 Sab a 5 identifying each wireless data transport in an operating environment of the CMR system in response to monitoring the operating environment;

10 selecting one identified wireless data transport to support the communication of the message based upon the volume of the data content, wherein each wireless data transport is assigned to support the communication of messages comprising a predetermined range of data content volume; and

15 communicating the message with the selected wireless data transport in the CMR system.

17. The memory storage device of Claim 16, wherein the CMR system supports the operations of a plurality of wireless data transports comprising overhead control channel, Short Message Service (SMS), Cellular Digital Packet Data (CDPD), and voice-channel modem transports.

20. The memory storage device of Claim 16, wherein the volume of the data content is small and the step of selecting the identified wireless data transport comprises choosing an overhead control channel transport.

25. The memory storage device of Claim 16, wherein the volume of the data content is medium and the step of selecting the identified wireless data transport comprises choosing a Short Message Service (SMS) transport.

30. The memory storage device of Claim 16, wherein the volume of the data content is large and the step of selecting the identified wireless data transport comprises choosing a Consumer Digital Protocol Data (CDPD) transport.

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21. The memory storage device of Claim 16, wherein the volume of the data content is very large and the step of selecting the identified wireless data transport comprises choosing a voice-channel modem transport.

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22. A memory storage device comprising computer-executable instructions for communicating a message comprising data content in a cellular mobile radiotelephone (CMR) system, comprising:

5 identifying each wireless data transport in an operating
environment of the CMR system in response to monitoring the operating
environment;

selecting one identified wireless data transport as a preferred transport medium to support the communication of the message based upon the volume of the data content, wherein each wireless data transport is assigned to support the communication of messages comprising a predetermined range of data content volume;

selecting one identified wireless data transport to support the communication of the message based upon alternative selection criteria other than data content volume;

if the wireless data transport selected as the preferred transport medium is the wireless data transport selected based upon the alternative selection criteria,

then communicating the message with the preferred transport medium in the CMR system,

otherwise, communicating the message with the wireless data transport selected based upon the alternative selection criteria.

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